

**DEPARTMENT OF CALIFORNIA HIGHWAY PATROL**

**PROPOSED TEXT**

TITLE 13, CALIFORNIA CODE OF REGULATIONS, DIVISION 2  
AMEND CHAPTER 2, ARTICLE 22, SECTIONS 811 AND 813

**WARNING LAMPS  
(CHP-R-2006-18)**

*Existing text:* .....Times New Roman 12 point font.

*Additions:* .....Times New Roman 12 point font with single underline.

*Deletions:* .....~~Times New Roman 12 point font with strikethrough~~

**Article 22. Warning Lamps**

**§ 811. Definitions.**

(a) Warning Lamp - A "warning lamp" is a lamp designed for use on authorized emergency vehicles and prescribed types of special hazard vehicles to indicate the existence of a traffic hazard or to signal other drivers to stop or yield the right of way.

(b) Warning Lamp Assembly - A "warning lamp assembly" is a device that consists of a housing with one or more light sources and any lenses, reflectors and any other components or devices necessary to provide the required level of performance.

(c) Warning Lamp Housing - A "warning lamp housing" is a device that holds a warning lamp unit or the light source(s), lens(es), reflector(s) and other components of a warning lamp assembly.

(d) Warning Lamp Unit - A "warning lamp unit" is a sealed or semisealed optical unit designed to meet the dimensional specifications of SAE J571d, June 1976, SAE J572a, January 1972, or SAE J760a, December 1974, and which meets the color and photometric requirements.

(e) Flashing Lamp - A "flashing lamp" is a lamp in which the emitted light in a particular direction alternates between on and off either electrically by controlling the current or mechanically by a revolving, oscillating, or other mechanism, or by other means such that the light output in a given direction is discernibly and regularly interrupted or intermittent at the required periodic rate.

(f) Steady-burning Lamp - A "steady burning lamp" is a lamp in which the emitted light in any

direction is uninterrupted.

(g) Light Source - A "light source" is an individual incandescent bulb, light emitting diode, ~~are~~ arc discharge bulb or other device that produces visible light whenever appropriate electrical energy is supplied to it.

(h) Light Pulse - A single, visually continuous emission of optical energy. High frequency modulation is permitted (reprinted with permission from SAE J847 [May 1997] © 1997 SAE International).

(i) Flash - A flash is a light pulse, or a train of light pulses, where a dark interval of at least 160ms separates the light pulse or the last pulse of the train of light pulses from the next pulse or the first pulse of the next train of light pulses. To be considered a train of light pulses, each pulse in the train must begin within 100ms after the end of the preceding light pulse. Dark interval luminous intensity shall not exceed 2% of the maximum luminous intensity of a flash (reprinted with permission from SAE J847 [May 1997] © 1997 SAE International).

(j) On-time - Summation of the light pulse(s) within a flash.

Note: Authority cited: Section 26103, Vehicle Code. Reference: Section 26103, Vehicle Code.

### **§ 813. General Requirements.**

(a) Flash Rate. Flashing warning lamps, other than gaseous discharge lamps, shall operate at a rate of 60 to 120 flashes per minute, with a 40 to 60 percent on-time under all operating conditions. The time between the end of one flash and the beginning of the following flash for a gaseous discharge lamp shall not exceed 0.85 seconds, which corresponds to a minimum of 70 flashes per minute. Flashes having a light output less than the required minimum shall not be counted in reporting flash rate. Light pulses having a light output less than the required minimum shall not be included in the on-time.

(b) Voltage. Warning lamps manufactured for more than one voltage shall comply with all requirements of this title when tested at each voltage. Warning lamps designed to operate on a rated voltage of 12 volts shall be tested at 12.8 volts. Warning lamps designed to operate on a rated voltage of 24 volts shall be tested at 25.6 volts. Warning lamps designed to operate on a rated voltage of other than 12 or 24 volts shall be tested at a voltage equivalent to the voltage provided by the vehicle storage battery charged to 100% capacity with no current drain.

(c) Exterior Lens Surface. The outside surface of the illuminated section of the lens shall be smooth with no ribs, ridges, or indentations other than marks of identification, screw holes, and aiming pads.

(d) Double-Faced Lamps. Steady burning double-faced lamps shall have opaque dividers to minimize exterior light shining through the lamp.

(e) Multiple Light Source Lamps. Lamps with two or more individual light sources shall have all light sources operating together when the lamp is steady burning or flashing.

Note: Authority cited: Section 26103, Vehicle Code. Reference: Sections 24012 and 26103, Vehicle Code.